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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PATENT GROUP GA030-43
GEORGIA-PACIFIC LLC
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EXAMINER

WOLLSCHLAGER, JEFFREY MICHAEL

ART UNIT

PAPER NUMBER

1791

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/815,791	Applicant(s) NECULESCU ET AL.	
	Examiner JEFFREY WOLLSCHLAGER	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 87-95 and 100-118 is/are pending in the application.
- 4a) Of the above claim(s) 87-95 and 109 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 100-108 and 110-118 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 15, 2009 has been entered.

Response to Amendment

Applicant's amendment to the claims filed January 15, 2009 has been entered. Claims 108 and 110 are currently amended. Claims 1-86, 96-99 have been canceled. Claims 87-95 and 109 have been withdrawn. Claims 100-108 and 110-118 are under examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 100-108 and 110-118 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 108 and 110 recite the limitation "the chill roll stack portion". There is insufficient antecedent basis for this limitation in the claim. Appropriate clarification and/or correction is required. For the purposes of examination, the term is understood to require that the claimed matte roll is employed in combination with other rolls that are used to cool the extruded sheet. Claims 100-107 and 111-118 are rejected as dependent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 102-108, 110 and 113-118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US 5,439,628) in view of Mitsuno et al. (EP 0 243 206) and either of Fujii et al. (US 5,473,016) or Nicoll (US 4,311,658), and in view of Emura et al. (US 4,436,685).

Regarding claims 108 and 110, Huang teaches the basic claimed process comprising thermoforming (col. 8, lines 1-5) a filled polypropylene sheet to produce a container wherein the container has a rough/coarse surface because of the filler particles effusing from the surface (col. 7, line 35- col. 8, line 5 and col. 6, lines 25-30). The filled sheet is extruded and calendered prior to the additional processing step of forming the articles, such as forming containers by thermoforming (col. 8, lines 53-62). Huang discloses mica as a suitable filler in a relatively short list of fillers, but only exemplifies talc or calcium carbonate (col. 6, lines 24-45).

However, Mitsuno et al. disclose a polypropylene (page 3, lines 7-10) filled composition which provides improved properties (page 2, lines 48-51) wherein talc and/or mica alone or

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together are the employed fillers (page 3, lines 54-61) and the composition is used in various molding applications (col. 4, lines 52-55). Further, Mitsuno et al. appear to show their best physical property results, such as heat deformation temperature and adhesive strength, when employing mica and talc together (examples 19-22; Table 5).

Additionally, Huang does not disclose the thermoforming temperature. However, Emura et al. disclose a process of thermoforming a polypropylene sheet wherein the temperature of the sheet is controlled between about 130 °C (266 °F) to 150 °C (302 °F) (col. 4, lines 10-16).

Further, while Huang discloses a cooling roll configuration that involves a takeoff roll, embossing roll and cooling roll (Table 2; col. 9, lines 30-32) to provide a desired texture, Huang does not expressly state this is a matte surface. However, Fujii et al. disclose that embossing rolls are understood to form a matte surface in the analogous sheet forming art (Abstract; col. 11, lines 8-23). Alternatively, Nicoll teach a method of forming a matte surface on sheets with matte rolls (Abstract; col. 1, lines 47-56; col. 3, lines 51-67).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have employed mica as a filler in the method disclosed by Huang, as suggested by Mitsuno, for the purpose of producing a desired product with improved physical properties. It is further noted that Mitsuno et al., in addition to Huang, suggest that mica and talc are equivalent fillers suitable for the same purpose. Further, it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Huang and to have employed the thermoforming conditions set forth by Emura et al. since Emura et al. suggest such conditions provide the appropriate balance between stiffness for easy transport and softness for thermoforming (col. 3, lines 56-67). Additionally, it would have been *prima facie* obvious to one having ordinary skill in the art to have employed a matte roll in the method of Huang since Fujii et al. provide evidence that the

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embossing roll of Huang is reasonably understood to be a matte roll, or alternatively, it would have been obvious to form a matte surface in the method of Huang for the purpose with a matte roll, as suggested by Nicoll, for the purpose, as suggested by Nicoll, of forming a surface that improves the ink receptivity of the plastic.

Finally, the examiner notes that the combination does not expressly teach the container has all the same claimed physical properties and effects. However, the combination teaches all claimed process steps, and employs all the claimed materials in the same claimed manner. As such, the claimed physical properties and effects are necessarily realized.

As to claims 102-107 and 113-118, Huang employs pre-blended/admixed titanium dioxide (Example 1) and polyvinylidene fluoride processing aids (col. 7, lines 1-22). Additionally, Huang teaches silanes are suitable for high level of filler loading to improve dispersion and compatibility (col. 6, lines 43-45).

Claims 100, 101, 111 and 112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huang (US 5,439,628) in view of Mitsuno et al. (EP 0 243 206) and either of Fujii et al. (US 5,473,016) or Nicoll (US 4,311,658), and in view of Emura et al. (US 4,436,685), as applied to claims 102-108 and 110 and 113-118 above, and further in view of Throne (Thermoforming) and/or Watkins et al. (US 5,514,315).

As to claims 100, 101, 111 and 112, Huang discloses thermoforming (col. 8, lines 1-5) in general. Huang does not disclose the specific thermoforming techniques claimed. However, Thermoforming by James L. Throne discloses a variety of thermoforming techniques are known and suggests their equivalence (pages 21-29). Further, Watkins et al. teach a method that employs vacuum to thermoform a polypropylene sheet (col. 3, lines 39-50).

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Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Huang and to have employed the specific thermoforming techniques suggested by Throne since Throne suggests the techniques are equivalent alternative thermoforming techniques known in the art (MPEP 2144.06-2144.07). Additionally or alternatively, it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to have modified the method of Huang and to have employed the specific vacuum forming technique disclosed by Watkins since Watkins suggests such a thermoforming technique protects the integrity of the thermoformed sheet (col. 3, lines 39-50).

Response to Arguments

Applicant's arguments filed January 15, 2009 have been fully considered, but they are moot in view of the new grounds of rejection necessitated by the amendment to the claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY WOLLSCHLAGER whose telephone number is (571)272-8937. The examiner can normally be reached on Monday - Thursday 6:45 - 4:15, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Wollschlager/
Examiner, Art Unit 1791

February 26, 2009